

REMARKS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants:

1. Editorially amend a paragraph in the specification.
2. Add new claims 21 - 46.
3. Respectfully traverse all rejections.
4. Respectfully request a one month extension of time.

B. BRIEF COMMENTS REGARDING THE DISCLOSURE

Applicant's disclosure teaches concerns relocation of a role of a serving radio network controller (SRNC) from a first radio network controller (RNC) to a second radio network controller (RNC). In accordance with various modes, for a service for which the relocation occurs the first radio network controller signals to the second radio network controller information for linking a transport channel utilized for the service with a radio access bearer (RAB) for the service.

In a first mode (described, e.g., with reference to Fig. 5A and Fig. 5B), when relocation from a first RNC to a second RNC is to occur for a service, the first radio network controller also signals to the second radio network controller information for *linking a dedicated transport channel (DCH) utilized for the service with a radio access bearer (RAB) for the service* (see, e.g., page 14, lines 23+ of the specification). In an example implementation of the first mode, such linking involves including both the dedicated transport channel (DCH) utilized for the service and the radio access bearer (RAB) in the RELOCATION REQUIRED MESSAGE and the RELOCATION REQUEST MESSAGE (see, e.g., the last two full paragraphs of page 16). By such linking, the second RNC is able to re-create the linking to the same DCHs as previously

utilized for user equipment unit. Such re-creation of the same DCH/RB linking is advantageous for many reasons. One such reason is that time and resources are not consumed in making another determination as to which DCHs should be utilized for user equipment unit (UE) with respect to the service (*see, e.g.,* page 17, lines 16 – 22). This overcomes the prior art practice of the second RNC having to guess or otherwise independently determine which dedicated transport channels (DCHs) would correspond to the radio bearers utilized (*see, e.g.,* page 14, lines 10 – 21).

In a second mode (described, *e.g.*, with reference to Fig. 8A and Fig. 8B), the linking is between the radio access bearer (RAB) and uplink and downlink TrCH IDs (*see, e.g.,* page 19, line 3 – page 20, line 10 of the specification). In an example implementation of the second mode, such linking involves including both the TrCH IDs and the radio access bearer (RAB) in the RELOCATION REQUIRED MESSAGE and the RELOCATION REQUEST MESSAGE (*see, e.g.,* page 19, line 14 – page 20, line 3). This linking advantageously obviates the prior art practice of second RNC having to guess which dedicated transport channels (DCHs) would correspond to a set of uplink and downlink TrCH IDs (*see, e.g.,* page 19, line 3 – page 20, line 10 of the specification).

In a third mode (described, *e.g.*, with reference to Fig. 11), the first RNC signals a linking of the TrCH IDs and DCH IDs to the second RNC over the Iur interface prior to the relocation procedure. In the relocation procedure itself, the TrCH IDs are linked to the RAB IDs (*e.g.,* via the RELOCATION REQUIRED MESSAGE and the RELOCATION REQUEST MESSAGE). *See, e.g.,* page 20, lines 11 – 29.

In a fourth mode (a variation of the third mode which is described, *e.g.,* with reference to Fig. 12), prior to the relocation procedure the first RNC communicates to the second RNC the uplink and downlink TrCH IDs which identify the DCH IDs. In an illustrated implementation, a linking of the TrCH IDs and RAB IDs occurs during the relocation procedure by including both in the RELOCATION REQUIRED MESSAGE

and the RELOCATION REQUEST MESSAGE. The second RNC can thus link the RAB to the DCH using the TrCH IDs provided firstly over Iur and secondly over Iu at relocation. *See, e.g.,* page 20, lines 30+, particularly page 21, lines 13 – 21.

C. THE NEW CLAIMS 21 - 46

New dependent claims 21 and 31 specify that the signaling (of the information for linking a transport channel utilized for the service with a radio access bearer (RAB) for the service) occurs *during a relocation procedure*. New dependent claims 22 and 32 describe further how this is done, e.g., by including a transport channel identifier and a radio access bearer (RAB) identifier in both a RELOCATION REQUIRED MESSAGE and a RELOCATION REQUEST MESSAGE. As alternative phraseology, new dependent claims 23 and 33 state that the first radio network controller includes a transport channel identifier and a radio access bearer (RAB) identifier in a message sent to a core network. Support for generic dependent claims 21 – 23 and 31 – 33 occurs in all four modes of the specification.

New dependent claims 24 and 34 are particularly supported, e.g., by the first mode of the specification. In dependent claims 24 and 34, the signaling is performed by including a dedicated transport channel identifier (DCH ID) and a radio access bearer (RAB) identifier in both a RELOCATION REQUIRED MESSAGE and a RELOCATION REQUEST MESSAGE.

New dependent claims 25 and 35 are particularly supported, e.g., by the second mode of the specification. In dependent claims 25 and 35, the signaling is performed by including uplink and downlink transport channel identifiers (TrCH IDs) and a radio access bearer (RAB) identifier in both a RELOCATION REQUIRED MESSAGE and a RELOCATION REQUEST MESSAGE.

New dependent claims 26 and 36 are also supported, e.g., by the second mode of the specification. In dependent claims 26 and 36, the signaling is performed by including

a dedicated transport channel identifier (DCH ID), uplink and downlink transport channel identifiers (TrCH IDs), and a radio access bearer (RAB) identifier in both a RELOCATION REQUIRED MESSAGE and a RELOCATION REQUEST MESSAGE.

New dependent claims 27 – 28 and 37 – 38 are particularly supported, e.g., by the third mode of the specification. In dependent claims 27 and 37, information for linking uplink and downlink transport channel identifiers (TrCH IDs) and a dedicated transport channel identifier (DCH ID) is transmitted over an Iur interface prior to the relocation procedure, and then during the relocation procedure, the signaling occurs for the information for linking the uplink and downlink transport channel identifiers (TrCH IDs) with a radio access bearer (RAB) identifier. In dependent claims 28 and 38, the signaling is specified to involve including the uplink and downlink transport channel identifiers (TrCH IDs) and the a radio access bearer (RAB) identifier in both a RELOCATION REQUIRED MESSAGE and a RELOCATION REQUEST MESSAGE.

New dependent claims 29 – 30 and 39 – 40 are particularly supported, e.g., by the fourth mode of the specification. In dependent claims 29 and 39, the uplink and downlink transport channel identifiers (TrCH IDs) which identify the dedicated transport channel identifier (DCH ID) are transmitted over an Iur interface prior to the relocation procedure. Then, during the relocation procedure, the information for linking the uplink and downlink transport channel identifiers (TrCH IDs) with a radio access bearer (RAB) identifier is signalled. Dependent claims 30 and 40 specify that the signaling involves including the uplink and downlink transport channel identifiers (TrCH IDs) and the a radio access bearer (RAB) identifier in both a RELOCATION REQUIRED MESSAGE and a RELOCATION REQUEST MESSAGE.

New dependent claims 41 – 44 further specify the nature of the transport channel which is linked with the radio access bearer. New dependent claims 41 and 44 state that the transport channel has a channel identifier which is utilized on one of an Iub interface

and a radio interface, the Iub interface being an interface between a radio network controller node and a base station node. In new dependent claims 42 and 45, the transport channel has a dedicated transport channel (DCH) identifier which is utilized on the Iub interface, while in new dependent claims 43 and 46 the transport channel has uplink and downlink transport channel identifiers (TrCH IDs) which are utilized on the radio interface interface. These new claims are supported, e.g., by the modes above discussed as well as the description of the dedicated transport channel (DCH) and uplink and downlink transport channel (TrCH ID). *See*, e.g., the paragraph bridging pages 3 and 4 of the specification.

D. PATENTABILITY OF THE CLAIMS

Claims 1-20 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent 6,466,556 to Boudreux (see enumerated paragraph 3 of the Office Action). All prior art rejections are respectfully traversed, both with respect to the original claims and new claims.

U.S. Patent 6,466,556 to Boudreux describes SRNC relocation as one of its handover scenarios (*see*, e.g., col. 5, line 61 – column 6, line 6). U.S. Patent 6,466,556 to Boudreux also defines a RAB as

“a channel used in UMTS to describe the channel established *between the RNC and nodes within the Core Network* to carry circuit or packet services. The RNC chooses the appropriate radio resources to support a given RAB request. A RAB for the UMTS Packet Domain is a GTP Tunnel. A RAB for the UMTS Circuit Domains is an ATM AAL2 connection.” (col. 6, lines 52 – 59, emphasis supplied).

The steps of the handover procedure of U.S. Patent 6,466,556 to Boudreux are described beginning in column 6, line 60, and with reference to Figs. 3 – 6 of U.S. Patent 6,466,556 to Boudreux.

The steps depicted in Fig. 3 of U.S. Patent 6,466,556 to Boudreux describe SRNC relocation required message 391, SRNC relocation requested message 393, and SRNC relocation proceeding message 396. As evident from by the paragraph extending from lines 4 – 13 of column 7, the only mention of the content of these messages of U.S. Patent 6,466,556 to Boudreux is that the tunnel description is sent using the SRNC relocation request message and SRNC relocation proceeding message. Thus, as evident from the “RAB” definition quoted above, U.S. Patent 6,466,556 to Boudreux is concerned only with establishing the RAB. There is no mention at this juncture (or anywhere else in U.S. Patent 6,466,556 to Boudreux) of signaling transport channel information such as DCH IDs or TrCH IDs for linking with a RAB.

The events depicted in Fig. 4 of U.S. Patent 6,466,556 to Boudreux involve PDP context updating and thus establishing of a new tunnel 361 for packet flow between GGSN 360 and DRNC 301, and transmission of duplicate packets over this new tunnel. But again this new tunnel is at the RAB level, and not a transport channel of the type of which has a channel identifier which is utilized on one of an Iub interface and a radio interface, e.g., the DCH or TrCH. Therefore, no linking occurs in the operations of Fig. 4 of U.S. Patent 6,466,556 to Boudreux.

The actions of Fig. 5 of U.S. Patent 6,466,556 to Boudreux primarily involve synchronization of the traffic occurring on the two (duplicating) tunnels.

The office action points to col. 7, lines 45 – 65 of U.S. Patent 6,466,556 to Boudreux as supposedly teaching the claimed linking. But this paragraph, directed to the events of Fig. 6, primarily concern a SRNC Relocation Commit message 399 which basically involves notification of the taking over by the new SNRC. The actions therein described are again those at the GTP tunnel (RAB) level. Applicant is unable to find in U.S. Patent 6,466,556 to Boudreux, in this paragraph or elsewhere, any teaching of signaling of transport channel information to a target RNC for linking of the transport

channel with the radio access bearer (RAB). U.S. Patent 6,466,556 to Boudreux appears totally preoccupied with setting up the radio access bearer (RAB), and such radio access bearer (RAB) should not be confused with the transport channel which the present claims link to the radio access bearer (RAB). In this regard, see particularly new claims 40+ which specify that the transport channel is of the type which has a channel identifier which is utilized on one of an Iub interface and a radio interface.

The mention by U.S. Patent 6,466,556 to Boudreux of dedicated radio traffic channels (as pointed out by the Examiner in column 4, lines 38 – 49) provides no fuel for the mistaken prior art rejection. In fact, at this juncture U.S. Patent 6,466,556 to Boudreux is trying to explain how the packet switched operation of GPRS differs from the dedicated radio traffic channels used in circuit services of GSM. And while U.S. Patent 6,466,556 to Boudreux goes on to state that radio channels can be dedicated to service types, such dedication is not a DCH type dedication. But even if U.S. Patent 6,466,556 to Boudreux were describing a service which utilized dedicated radio traffic channels such as DCH, it still falls short in not disclosing or suggesting any linking of any transport channels with a RAB in conjunction with a SRNC relocation procedure.

Nowhere does U.S. Patent 6,466,556 to Boudreux even appreciate the problem of the new SRNC having to re-create the linking to the same DCHs or TrCHs as previously utilized for user equipment unit (UE). Applicant has not only anticipated this problem, but solved it in a variety of elegant modes and implementations.

E. MISCELLANEOUS

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application, including but not limited to additional claims fee and the extension of time fee.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

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By: 
H. Warren Burnam, Jr.
Reg. No. 29,366

HWB:lsh
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100